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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,681	03/18/2004	Jianbo Lu	81095831FGT1913	2680
28549	7590	05/15/2006	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH ROAD, SUITE 250 SOUTHFIELD, MI 48034			GIBSON, ERIC M	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/708,681	Applicant(s) LU ET AL.	
	Examiner Eric M. Gibson	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuno (US2001/0020217A1).

a. Per claim 1, Matsuno teaches a control system for a vehicle having a brake system including an object detection system generating an object detection signal and an object distance signal (15b, figure 1), and a controller coupled to the object detection system programmed to generate a brake-steer signal proportional to the object distance signal (page 3, [0033]).

b. Per claim 2, Matsuno teaches a direction change (yaw).

c. Per claim 3, Matsuno teaches controlling brakes to generate the turning force (page 3, [0049]).

d. Per claims 4-7, Matsuno teaches a CCD camera (11, figure 1) and that other forms of object detection, such as radar or equivalent, are well known in the art (page 1, [0004]).

e. Per claim 8, Matsuno teaches a control system for a vehicle having a brake system including an object detection system generating an object detection signal

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and an object distance signal (15b, figure 1), and a controller coupled to the object detection system programmed to generate a brake signal proportional to the object distance signal (page 3, [0033]) and control the brake system (page 3, [0049]).

f. Per claim 9, Matsuno teaches a brake control system that applies brake signals as is well known in the art (page 3, [0049]-[0050]).

g. Per claim 10, Matsuno teaches a direction change (yaw).

h. Per claim 11, Matsuno teaches controlling brakes to generate the turning force (page 3, [0049]).

i. Per claims 12-15, Matsuno teaches a CCD camera (11, figure 1) and that other forms of object detection, such as radar or equivalent, are well known in the art (page 1, [0004]).

j. Per claim 16, Matsuno teaches controlling brakes to generate the turning force (page 3, [0049]).

k. Per claims 17-18, reducing the turning radius is the result of the action being performed in the Matsuno reference.

l. Per claim 19, Matsuno teaches decreasing the drive torque of one wheel relative to another by applying the brake. This has the natural consequence of increasing the drive torque of the other wheel relative to the braked wheel.

m. Per claim 20, Matsuno teaches a method of controlling a vehicle having a brake system including an generating an object detection signal and an object distance signal (15b, figure 1), and generating a brake signal proportional to the object distance

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signal (page 3, [0033]) and control the brake system to avoid the obstacle (page 4, [0070]).

n. Per claims 21 and 22, Matsuno teaches a CCD camera (11, figure 1) and that other forms of object detection, such as radar or equivalent, are well known in the art (page 1, [0004]).

o. Per claim 23, reducing the turning radius is the result of the action being performed in the Matsuno reference.

p. Per claim 24, Matsuno teaches decreasing the drive torque of one wheel relative to another by applying the brake. This has the natural consequence of increasing the drive torque of the other wheel relative to the braked wheel.

q. Per claims 25 and 26, Matsuno teaches different situations where the signal is applied to the front or rear wheels (page 4, [0055]-[0058]).

r. Per claim 27, Matsuno teaches a method of controlling a vehicle having a brake system including an generating an object position signal and an object distance signal (15b, figure 1), and generating a brake signal proportional to the object distance signal (page 3, [0033]) and generating a supplemental brake signal in response to the object position signal (page 4, [0070]).

s. Per claims 28 and 29, Matsuno teaches a CCD camera (11, figure 1) and that other forms of object detection, such as radar or equivalent, are well known in the art (page 1, [0004]).

t. Per claim 30, Matsuno teaches that the supplemental signal is generated in response to a yaw rate (page 3, [0033]+).

Response to Arguments

2. Applicant's arguments filed 3/1/2006 have been fully considered but they are not persuasive. The Examiner finds that the brake steer signal is substantially "proportional to the object distance signal" for the purposes of anticipating the claims. The claim does not require an equation or defined relationship between the brake steer signal and the object distance signal. The claim limitation is fulfilled by being merely "proportional" to the object distance signal. In the Matsuno reference, the object distance signal is used to determine a first yaw rate (page 3, [0033]), which is then used to calculate the target yaw moment used to calculate the brake steer force (page 3, [0051]). Because the claim does not require a specific relationship, other than some mere proportionality, it is believed that the disclosed relationship in Matsuno satisfies this limitation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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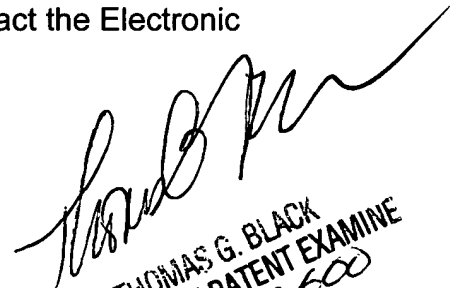
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Gibson whose telephone number is (571) 272-6960. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG



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